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EXAMINER
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/595,026  
Filing Date: December 21, 2005  
Appellant(s): STEFAN, ROMMER

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Roger Burleigh  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed November 8, 2010 appealing from the Office action mailed June 7, 2010.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appeal Brief filed by applicant's representative April 16, 2010.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

Claims 1-3 and 6-8.

**(4) Status of Amendments**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

2004/0193513 A1	Pruss et al	09-2004
6,473,413 B1	Chiou et al	10-2002
2006/0253893 A1	Stephan	11-2006

**(9) Grounds of Rejection**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruss et al (Pruss) (US Patent Publication No. 2004/0193513 A1), in view of Chiou et al (US Patent No. 6,473,413 B1).

As per claims 1, 7 and 8, Pruss discloses:

- ***A network comprising at least one access point (AP)***, (Pruss, Paragraphs [0052]-[0053] and [0198]), Pruss teaches an access point within a network.

- **one access controlling node**, (Pruss, Paragraphs [0009]-[0010], [0047]-[0048] and [0054], “[T]he Service Selection Gateway acts as a control plane[.]”).

- **the access points making use of an Inter-Network Access Protocol (INAP) for communication**, (Pruss, Paragraphs [0008], [0045] and [0203], “[C]ertain embodiments are illustrated using RADIUS as a communication protocol, but embodiments are not limited to the use of the RADIUS protocol.”).

- **wherein at least one mobile station may associate with the access points**, (Pruss, Paragraphs [0052]-[0053], [0066]-[0068] and [0074], “[N]etwork elements automatically log the mobile user on to a service provider network.”).

- **wherein the identity of the mobile station can be approved by the access controlling node**, (Pruss, Paragraphs [0009], [0042], [0047] and [0105], “The Service Selection Gateway module includes a Service Authorization module that can authenticate the identity of users before a service is delivered[.]”).

**wherein the access controlling node:**

- **monitors whether a given mobile station has access to any of a given subset of access points**, (Pruss, Paragraphs [0074], [0154], [0195]), Pruss teaches the SSG detecting when a mobile device has logged on, is idle or has logged off.

- **monitors an account relating to the given mobile station associated with a given access point of the subset of access points**, (Pruss, Paragraphs [0105], [0125] and [0153], “[T]he SSG uses the quota for the connection, while simultaneously monitoring usage of the connection.”).

- **if detecting that the account relating to the given mobile station has a balance of zero**, (Pruss, Paragraphs [0076] and [0133]-[0134]), Pruss teaches the SSG monitors the quota of a mobile device and detects when the quota is zero.

- **the at least one access-controlling node issues at least one INAP message causing the access point of the subset with which the mobile station is currently associated to disassociate the given mobile station, thereby terminating access for the given mobile station**, (Pruss, Paragraphs [0138]-[0141], “[W]hen all balances reach zero, in certain embodiments a message is sent from SSG 114 to GGSN 106B indicating that the user is disconnected from all services.”).

Pruss teaches using a communication protocol amongst network elements, but does not specifically disclose:

- ***Inter-Access Point Protocol (IAPP)***, However, Chiou in an analogous art discloses the limitation. (Chiou, Column 1, Lines 16-39 and Column 3, Lines 19-46, “The communication among the Access Points (AP) in the WLANs is following the communication mechanisms defined by the Inter Access Point Protocol ( IAPP).”).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chiou into the teaching of Pruss to use the IAPP protocol for communication. The modification would be obvious because one of ordinary skill in the art would want the benefit of providing a communication protocol that allows mobile stations to easily roam to various access points in different Internet Protocol subnets without requiring additional hardware or software configurations. (Chiou, Column 1, Line 66 – Column 2, Line 3).

As per claim 2, Pruss further discloses:

- ***wherein the access-controlling node is an authentication server connected to the Internet***, (Pruss, Paragraphs [0009]-[0010], [0048] and [0053]-[0054]), Pruss teaches a router containing a service selection gateway is coupled to the internet and serves as an access-controlling node.

As per claim 3, Pruss further discloses:

- ***wherein a second access control node is provided, the second access control node being a gateway node***, (Pruss, Paragraphs [0053], [0055] and [0084]-[0086]), Pruss teaches a gateway support node as an access control node.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pruss (US Patent No. 6,058,300 A), in view of Chiou et al (US Patent No. 6,473,413 B1), in further view of Applicant's Admitted Prior Art (AAPA).

As per claim 6, Pruss discloses an access control node but does not specifically disclose the following limitations. However the AAPA discloses:

- ***wherein the access controlling node issues a Lock out request to the gateway node***, (AAPA, Page 2, Lines 12-17, “[T]he authentication server issues a lock out request 69, whereupon the gateway node locks out the station 71”).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of the AAPA into the teaching of Pruss and Chiou to issue a lock out request to a gateway node. The modification would be obvious because one of ordinary skill in the art would want the benefit of being able to close an ongoing session from a gateway node if a user of a pre-paid account has run out of credit. (AAPA, Page 4, Lines 4-9).

### ***Allowable Subject Matter***

Claims 4-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## **(10) Response to Argument**

### **Summary of Technology**

In cellular communications systems, each generation operates according to a standard protocol such as Signaling System 7, Intelligent Network, Internet Protocol, etc. These protocols are needed for communication between different elements within the network to perform various functions, including authenticating a mobile station.

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Once a mobile station is authenticated by the network, the mobile station is allowed to communicate with access points in order to receive different services. As newer protocols are created, systems must adapt the messages they exchange to conform to the new protocol. Although the name of the protocol changes, the steps or pieces used for authenticating of a mobile station and the communicating of a mobile station with an access point does not. Thus in many instances of the next generation protocol or of designing new systems, engineers will use the equipment and processes from older systems but the name of the equipment or process steps changes to thereby show that it is from a newer generation, but the piece or process remains the same. There are cases where the process steps or pieces change thus forming the new protocol. However for the apparatus or process to actually be different it must claim different pieces or steps that form the protocol.

### **Summary of Appellant Argument and Examiner's Response**

In general the appellant first argues that the combination of the references do not disclose the limitations and that the references are not combinable and that there is no suggestion to combine the references and that it would not be obvious to combine to show the protocol message.

However the examiner disagrees because, as discussed above, the claims do not claim any new steps or pieces that form the argued new protocol. The primary reference discloses all the claimed features of the independent claim using a particular protocol similar to IAAP protocol. As discussed above, the only different in the invention is the protocol used. Since the primary reference is already using a protocol that shows



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the same pieces and steps that the applicant claims, it would be obvious to persons skilled in the art to change to a protocol of an older device, translate the older device, to the current version or a protocol or to the protocol of system where the old apparatus will now be used. The secondary reference shows the obviousness where the secondary reference is just such a system using IAAP protocol.

However, the examiner respectfully disagrees. The examiner would like respectfully point out the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In the instant case, the cited references used are references concerned with the same technology of cellular communication systems allowing a mobile station to connect and communicate with an access point. Therefore, the art is analogous and the references are combinable.

Further the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion to combine the references was previously shown within the secondary references as cited

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in the motivation statements and can also be found within the background of the secondary references.

Thus with regard to motivation and combination, the examiner contends that the references were combinable with proper motivation and the rejections should stand.

Secondly the appellant argues that the primary reference, Pruss et al, does not teach the use of Inter-Access Point Protocol (IAPP) and it would not be obvious to combine to show the IAPP protocol.

The examiner would like to respectfully point out that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The examiner contends the use of IAPP is shown in the secondary prior art of Chiou et al. Thus the combination of Pruss et al with Chiou et al teaches the use IAPP as claimed.

Thus with regard to IAPP, the examiner contends that the limitations are taught and the rejections should stand.

### **Detailed Response to Argument**

On page 4, the appellant provides a status of the claims in the application and argues that claims 1-3 and 6-8 are allowable over the prior art of record. The examiner respectfully disagrees. The examiner contends the prior art of record discloses the limitations of claims 1-3 and 6-8; therefore the claims are not in condition for allowance.

On page 5, the appellant argues that Pruss et al does not disclose the use of IAPP. The examiner would like to respectfully point out the use of IAPP is taught in a

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combination of references and thus the appellant must treat the combination of references as a whole. Pruss et al teaches various protocols for communication within a communications system and specifically states the protocols taught are not limitations and others may be used. Therefore, Pruss et al is combined with Chiou et al in an analogous art to disclose the use of IAPP in a communications system; therefore, IAPP as claimed is taught and was known in the art at the time the invention was made. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends the claimed feature is taught.

On pages 5-6, the appellant argues that too much is read into the IAPP taught by Chiou et al. The examiner respectfully disagrees. Pruss et al teaches using a communication protocol for exchanging messages amongst network elements and states that other protocols may also be used as well. Chiou et al teaches IAPP as a communication protocol amongst network elements. The examiner contends the claims have been examined in a reasonable manner, given the broadest reasonable interpretation in simply replaces one protocol with another. It has been held that during patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The Federal Circuit's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the "broadest reasonable interpretation" standard: The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted

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by one of ordinary skill in the art.” In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). For these reasons in addition to the Summary of Technology and Examiner’s Response provided above, the examiner contends the broadest reasonable interpretation has been employed in examination of the claims and too much has not been read in any one reference, but all limitations are taught within the combination of references.

On page 6, the appellant argues that there is no teaching, motivation or suggestion to use IAPP for terminating an association of a mobile station with an access point in response to a determination that an account relating to a mobile station has a balance of zero. The examiner respectfully disagrees. Pruss et al teaches a communication protocol within a network for communication amongst network elements to connect a mobile station to an access point. Pruss et al states the communication protocol taught is merely one example and explicitly states other communication protocols may be employed. Chiou et al - in an analogous art as Pruss et al - specifically discloses IAPP as a communication protocol within a network for connecting a mobile station to an access point. The protocol taught by Pruss et al is simply substituted with the protocol taught by Chiou et al. Therefore, the examiner contends there is some teaching, suggestion, or motivation to combine the references. The system taught by Pruss et al further discloses monitoring an account of a mobile station, detecting when the account of the mobile station is zero and disconnecting the mobile station from all services of the access point when the balance is zero using a communication protocol. The protocol taught by Chiou et al incorporated into the

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system taught by Pruss et al would be used for these purposes as well. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends the claimed feature is taught.

On page 6, the appellant argues that a rational basis for combining the recited elements to arrive at the claimed invention must be provided. The examiner would like to respectfully point out the references cited are within an analogous art, and further, the rational for combining the references was shown within the secondary references as cited in the motivation statements of the rejection and can also be found within the background of the secondary references. Further, the examiner would like to remind the appellant that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends a rational basis for combining the references has been shown.

On page 6, the appellant again argues that Pruss et al does not disclose the use of IAPP, specifically the use of the protocol for terminating access upon detecting an account of a mobile station has a balance of zero. The examiner would like to reiterate that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. The examiner contends the use of IAPP is shown in the secondary prior art of Chiou et al in implicit form and in function.

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Pruss et al teaches various protocols for communication within a communications system and specifically states the protocols taught are not limitations and others may be used. The system taught by Pruss et al further discloses disconnecting a mobile station from all services of an access point when the balance is zero using a communication protocol. The protocol taught by Chiou et al incorporated into the system taught by Pruss et al would be used for this purpose as well. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends the claimed feature is taught.

On page 7, the appellant argues that IAPP used in Chiou et al is for handover purposes and not for access control. The examiner respectfully disagrees. The examiner contends that access control is an inherent feature in all cellular communications systems. Before a mobile station is allowed to connect to an access point, it must first be authenticated. Mobile stations that are not authenticated are not allowed to connect to, communicate and receive services from access points. Therefore, the examiner contends access control is taught in Chiou et al. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends the claimed feature is taught.

On page 7, the appellant argues that the claims have been rejected by picking and choosing technical terms and general functions from prior art references and a proper *prima facie* case of obviousness has not been established. The examiner respectfully disagrees. The references are analogous in that they relate to cellular communication systems that allow a mobile station to connect to an access point.

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Pruss et al teaches a communication protocol for accomplishing this task. Chiou et al teaches a different protocol. The analogous references have been properly combined and teach the claimed limitations. For these reasons in addition to the Summary of Technology and Examiner's Response provided above, the examiner contends references have been combined in a proper manner in order to form a *prima facie* case of obviousness.

On page 7, the appellant argues that independent claims 1, 7 and 8 are not obvious over the prior art references Pruss et al and Chiou et al. The examiner respectfully disagrees. The examiner contends the prior art of record in addition to the Grounds of Rejection, Examiner's Response and Detailed Response to Argument provided above establishes a *prima facie* case of obviousness and discloses all limitations presented in independent claims 1, 7 and 8, and therefore, the claims are not in a condition for allowance.

On page 7, the appellant argues dependent claims 2, 3 and 6 due to their dependence on claim 1 are also not obvious over the prior art references Pruss et al and Chiou et al. The examiner respectfully disagrees. The examiner contends the prior art of record discloses the limitations of the independent claim 1 in addition to limitations presented in dependent claims 2, 3 and 6, and therefore, the dependent claims are not in a condition for allowance.

#### **(11) Related Proceedings Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tangela T. Chambers/

January 22, 2011

Conferees:

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

/George Eng/

Supervisory Patent Examiner, Art Unit 2617